



NODES MARKET RULEBOOK

SPECIFIC MARKET REGULATIONS

Schedule 5 – Effekthandel Väst

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Sensitivity: Internal

1 INTRODUCTION

- 1.1 This Schedule sets out the specific rules that apply to the Effekthandel Väst.
- 1.2 Effekthandel Väst is a project run by Göteborg Energi Nät AB and Mölndal Energi Nät AB (collectively the “**Network Operators**”) and NODES. Project duration, and trading season dates are subject to change and can differ among the network operators. Members will be notified in advance.
- 1.3 The market will include the following products:
- i. ShortFlex
 - ii. LongFlex
 - iii. MaxUsage
 - iv. Other products can also be offered for testing purposes.
- 1.4 Other than as set out herein, the Rulebook applies in full for the project.

2 PRODUCT DESCRIPTIONS

2.1 Definitions

- 2.1.1 The following terms are defined by this Schedule 5 rather than in the Product Specifications:

Delivery Period	is 60 minutes (whole/integer hour starting HH:00:00 and ending HH:59:59)
Gate Closure	2:00 hours before Delivery commences
Lot Size	0.01 MW
Minimum Lot	0.05 MW
Settlement Days	means any day of the week that is not a Saturday, Sunday or a public holiday in Sweden and/or Norway.
Trading Days	means any day of the week that is not a Saturday, Sunday or a public holiday in Sweden.

- 2.1.2 The market for ShortFlex Products opens 6 (six) calendar days prior to the Delivery Date.

3 TRADING AND SETTLEMENT

3.1 Baseline Capacity Nominations

- 3.1.1 NODES will calculate a default Baseline Capacity for each Asset Portfolio and each Delivery Period that forms part of a Trading Day, provided that the Network Operators or the Seller has submitted meter values that enable NODES to do so in accordance with section 3.3.
- 3.1.2 NODES will calculate the default Baseline Capacity as a simple average of the meter values for the corresponding Delivery Period over the five preceding Trading Days.
- 3.1.3 A Member may nominate an alternative Baseline Capacity if a Network Operator has provided its written agreement that the Member may do so for that Network Operator's network area. A Member who wishes to nominate an alternative Baseline Capacity shall submit a written description to the relevant Network Operator of the methodology used to calculate that alternative Baseline Capacity and any supplemental information that the Network Operator may reasonably request. A Baseline Capacity nomination from a Member shall, in addition to the criteria set out in section 2.1.3 of the Trading and Settlement Schedule, Schedule 2 be based on an objective methodology and documentable metering values.
- 3.1.4 A Member that nominates an alternative Baseline Capacity shall do so for all Delivery Periods, starting with the Delivery Period that pertains to the Member's first ShortFlex Offer or earlier Delivery Periods. A Member that ceases to place Offers and that does not intend to place further Offers may cease to nominate Baseline Capacities.
- 3.1.5 A Member who nominates an alternative Baseline Capacity shall keep an audit trail of its Baseline Capacity calculation and any data used for that calculation.
- 3.1.6 A Network Operator shall be entitled to require NODES to invoke a request as set out in section 2.1.5 of the Trading and Settlement Schedule, Schedule 2 (with the "foregoing requirements" referring to the nomination rules applicable), if the Network Operator wishes to perform an audit check or if the Network Operator has reason to believe that the Baseline Capacity nominated by a Member does not adhere with the criteria set out in section 2.1.3 of the Trading and Settlement Schedule, Schedule 2 and section 3.3.1 Should NODES invoke such a request, Members have until the end of the fifth (5th) Settlement Day following NODES' request to respond before NODES may declare a Default under the Rules. NODES may suspend the Member from trading pending a satisfactory response from the Member.

3.2 LongFlex Trading

- 3.2.1 LongFlex Contracts are entered into through the relevant functionality on the Platform and according to the following process:
 - (a) The Buyer initiates the LongFlex Contract allocation process by publishing a LongFlex Bid using the relevant Platform functionality. The LongFlex Bid shall specify the applicable LongFlex Order parameters listed in the Product Specifications, Schedule 3. The Buyer shall specify a maximum Reservation Price and a maximum Activation Price.

(b) Sellers may respond to the LongFlex Bid by submitting a LongFlex Offer using the relevant Platform functionality. Sellers may choose to offer a lower Order Capacity than the Order Capacity specified by the Buyer in the Bid. Sellers may choose to specify a lower Reservation Price than the Reservation Price specified by the Buyer and/or a lower Activation Price than the Activation Price specified by the Buyer.

(c) Where the Buyer has published more than one LongFlex Bid and the LongFlex Bids specify the same From date and To date, Sellers can respond only to one of those LongFlex Bids.

(d) The Buyer will rank LongFlex Bids based on the total price over the contract ("**Total LongFlex Contract Price**"), where:

$$\text{Total LongFlex Contract Price} = (\text{Reservation Price offered by the Seller} * \text{Number of hours covered by the Contract}) + (\text{Activation Price offered by the Seller} * \text{Number of activated hours for price comparison})$$

The Number of activated hours for price comparison is a number that is used to rank LongFlex Offers. LongFlex Contracts that are allocated to Sellers may be activated for a higher or lower number of hours.

(e) The Buyer will select Offers starting with the lowest priced Offer until the Order Capacity specified in the LongFlex Bid has been filled. The Buyer may elect to fill its Order Capacity partially or to not select any Offer.

(f) The Buyer will announce the start of the allocation process, the deadline for Sellers to submit LongFlex Offers and the Number of activated hours for price comparison by publishing a market message on the Platform.

(g) The allocation process may be varied by NODES in consultation with the Buyer, in which case Sellers shall be notified.

3.2.2 Using either of the methodologies set out in section 4.3.1 (a) and (b) of the Trading and Settlement, Schedule 2, Sellers must ensure that ShortFlex Offers are available for all Delivery Periods that are covered by the LongFlex Contract.

3.2.3 A LongFlex Contract must fulfil the following criteria:

(h) The Delivery Periods of the LongFlex Contract must correspond to the Delivery Periods of the ShortFlex Contracts that will be created from the LongFlex Contract.

(i) The Contract Price shall consist of a Reservation Price and a maximum Activation Price, which must be constant for the Contract Period.

3.3 Delivery

- 3.3.1 Each Network Operator shall transmit meter values to NODES for participating Assets located in that Network Operator's network area, unless that Network Operator has agreed that a Seller may transmit its own meter values in accordance with section 3.3.2
- 3.3.2 A Seller may in exceptional circumstances transmit its own meter values to NODES for the Seller's participating Assets, if the relevant Network Operator has provided written agreement to the Seller and to NODES that the Seller may do so¹. If a Seller transmits its own meter values to NODES, NODES will use those meter values for validation and settlement. Meter values that classify as personal data as defined by Article 4 of the Regulation (EU) 2016/679 (General Data Protection Regulation) shall be transmitted as aggregate values for each Asset Portfolio.
- 3.3.3 If requested by a Network Operator, Sellers shall obtain explicit authority for that Network Operator or its representatives to collect and use metering data from the party that has subscribed to capacity in that Network Operator's network.
- 3.3.4 Meter values shall be transmitted to NODES using the relevant functionality of the Platform and shall be of an hourly or lower granularity.
- 3.3.5 Meter values shall at a minimum be transmitted to NODES for the following Delivery Periods:
- (a) A Seller that submits its own meter values shall submit meter values for:
 - i. each Delivery Period covered by a ShortFlex Offer;
 - ii. the 24 Delivery Periods that precede each Delivery Period covered by a ShortFlex Offer; and
 - iii. the 48 Delivery Periods that follow each Delivery Period covered by a ShortFlex Offer.
 - (b) A Seller that submits its own meter values and uses the default Baseline Capacity shall in addition to 3.3.5 (a) i, ii, and iii submit meter values for all Delivery Periods that form part of the five Trading Days preceding the Delivery Date of each ShortFlex Offer.
 - (c) For Assets for which the Network Operators transmit meter values, the Network Operators shall submit meter values for each Delivery Period covered by a ShortFlex Contract.
 - (d) For Assets for which the Network Operators transmit meter values and which belong to Portfolios for which NODES calculates a default Baseline Capacity, the Network Operators shall submit meter values for all Delivery Periods covered by all Trading Days.
- 3.3.6 Meter values shall be transmitted to NODES before the following deadlines:

¹ The exemption could for example apply to Sellers who act as aggregators who wish to use meter values from sub-meters.

- (a) For Assets that belong to Portfolios for which NODES calculates a Default Baseline Capacity, meter values shall be transmitted to NODES before the end of the Settlement Day following the Delivery Date that the meter values pertain to.
- (b) With the exception of 3.3.6 (a) meter values shall be transmitted to NODES at the latest on the first Settlement Day of the calendar month following the month that the meter values pertain to.

3.3.7 A Seller that submit its own meter values to NODES shall keep an audit trail that demonstrates that the meter values transmitted to NODES reflect the amount of electricity generated or consumed by the Seller's participating Assets.

3.3.8 NODES and the Network Operators may at any time perform audit checks to verify that the meter values transmitted to NODES reflect the amount of electricity generated or consumed by the Seller's participating Assets. Audit checks may include site audits to inspect a Seller's metering equipment.

3.3.9 NODES may declare a Default under the Rules if:

- (a) a Seller does not respond to NODES' or a Network Operator's request for the Seller to provide an audit trail by the end of the (5th) Settlement Day following NODES' or the Network Operator's request;
- (b) a Seller unreasonably prevents the Network Operator or NODES from conducting a site audit; or
- (c) NODES or a Network Operator determines that the Seller's response is insufficient to demonstrate that the Member has submitted meter values to NODES that accurately reflect the amount of electricity generated or consumed by the Seller's Assets.

3.3.10 Sellers authorise NODES to use the meter values transmitted to NODES by the Seller or by the Network Operator to validate Delivery and perform NODES' other rights and obligations in respect of Contracts that are subject to the Rules.

3.3.11 A Measurement Period shall be one (1) hour.

3.3.12 NODES will validate Delivery for Contracts that are subject to Settlement under the Rules by comparing metering values to the Baseline Capacity for the Delivery Period and Assets of the relevant Contract, based on the metering values received from the Network Operators or the Member for the relevant Assets.

3.3.13 Section 7.3 of the Trading and Settlement Schedule, Schedule 2 is replaced by the following:

- (a) In respect of the Activation Price (for ShortFlex Contracts, including those arising out of LongFlex Contracts and those eligible for ShortFlex Availability Compensation):

Where Delivery is validated for 80% or more of the Contract Load of a ShortFlex Contract, the Seller will receive 100% of the Activation Price.

Where Delivery is validated for less than 80% of the Contract Load, the Seller shall pay a Delivery Default Cost of 2.5% of the Contract Price for every 1% that the Actual

Load deviates from the Contract Load (calculated from 100% of the Contract Load), provided that the maximum Delivery Default Cost shall be the Activation Price.²

3.3.14 In respect of the LongFlex Reservation Price:

- (b) NODES will, for LongFlex Contracts with a Contract Period that is equal to or shorter than 31 calendar days, calculate an average delivery percentage across the ShortFlex Orders and ShortFlex Contracts that arise out of each LongFlex Contract during the Contract Period (“Average Delivery Percentage”).
- (c) NODES will, for LongFlex Contracts with a Contract Period that is longer than 31 days, calculate an Average Delivery Percentage across the ShortFlex Orders and ShortFlex Contracts that arise out of each LongFlex Contract for each calendar month.
- (d) The Average Delivery Percentage will be calculated as follows:

For each ShortFlex Contract that arises from the LongFlex Contract:

$$\text{Delivery \%}_A = \text{Delivery/Contract Load}$$

For each ShortFlex Order that arises from the LongFlex Contract and that remains unmatched at Gate Closure:

$$\text{Delivery \%}_B = 100\%$$

For any Delivery Periods covered by the LongFlex Contract where the Seller did not make a ShortFlex Order available:

$$\text{Delivery \%}_C = 0 \text{ (zero)}$$

Average Delivery Percentage = Sum of all Delivery %_A, Delivery %_B, Delivery %_C, divided by the number of Delivery Periods covered by the LongFlex Contract during the relevant calendar month or Contract Period as applicable.

Where the Average Monthly Delivery % is 80% or more, the Seller will receive 100% of the Reservation Price. Where the Average Monthly Delivery % is less than 80%, the Reservation Price will be reduced by 2.5% for every 1% that Average Monthly Delivery % falls below 80%.³

² This means that payment is reduced linearly from 100% of payment when Delivery is validated for 80% of Contract Load or above, until payment reaches 0 (zero) where Delivery is validated for less than 40% of the Contract Load.

³ For clarity, this means the Reservation Price reduces linearly down to 0 (zero) where the Average Monthly Delivery % is 40% or below.

3.4 MaxUsage

3.4.1 Introduction

MaxUsage is available in two forms:

MaxUsage Volume Reduction: The seller will promise to not take his consumption above an power limit (MW) for certain hours.

MaxUsage Percent Reduction: If you have the possibility to cap the consumption on your intake at a given %-level, you can use the MaxUsage Percent option.

For example, if you set “limit usage to 25%”, we assume that consumption in a given hour would have been 4 times as high, had the contract not been in place. Contract settlement is calculated post-delivery and is then proportional to the volume “saved”.

3.4.2 MaxUsage Trading

MaxUsage Contracts are entered into through the relevant functionality on the Platform and according to the following process:

- a) The Buyer initiates the MaxUsage Contract allocation process by publishing a MaxUsage Tender using the relevant Platform functionality.
- b) Sellers may respond to the MaxUsage tender by submitting a MaxUsage response using the relevant Platform functionality. Sellers may choose to offer a lower Order Capacity than the Order Capacity specified by the Buyer in the Bid. Sellers may choose to specify a lower price, fewer days and fewer hours than what was specified by the Buyer.
- c) The Buyer will rank MaxUsage responses based on the expected total price over the contract.
- d) The Buyer will select Offers starting with the lowest priced Offer until the Order Capacity specified in the MaxUsage tender has been filled. The Buyer may elect to fill its Order Capacity partially or to not select any Offer.
- e) The Buyer will announce the start of the allocation process and the deadline for Sellers to submit tender responses.
- f) The allocation process may be varied by NODES in consultation with the Buyer, in which case Sellers shall be notified.

3.4.3 MaxUsage Delivery

3.4.3.1 MaxUsage Volume Reduction

Delivery and payment is calculated per hour.

Delivery = 100% if meter data is not above agreed max limit, 0% otherwise

Payment = Delivery x Price/MW/h x Volume Reduction MW/h

Total contract payment is calculated by summing all hours in the contract. This calculation is available to both Seller and Buyer under the Settlement View.

3.4.3.2 MaxUsage Percent Reduction

Delivery and payment is calculated per hour:

Delivery = ((meterReading / (1-%)) – meterReading)

Payment = ((meterReading / (1-%)) – meterReading) x Price/MW/h

Total contract payment is calculated by summing all hours in the contract. This calculation is available to both Seller and Buyer under the Settlement View. Until automatic settlement calculations are available in NODES, a separate overall statistical analysis is currently performed by NODES on the meter data to verify delivery.

Example: In a contract with “limit usage to 25%”, we assume that consumption in a given hour would have been 4 times as high, had the contract not been in place. Contract settlement is calculated post-delivery and is then proportional to the volume “saved”.

Meter reading hour 1 = 10

% = 0.75

Price = 500

Delivery hour 1: $((10/(1-0.75)) - 10) = (10/0.25) - 10 = 40 - 10 = 30$

Payment hour 1: $30 \times 500 = 15000$

3.4.4 MaxUsage Payments

- 3.4.4.1 For MaxUsage Contracts with a Contract Period that is equal to or shorter than 31 calendar days NODES will issue invoices to the Buyer for the Reservation Price within seventeen (17) Settlement Days from the end of the calendar month during which the Contract Period ended, subject to NODES receiving meter data.
- 3.4.4.2 For MaxUsage Contracts with a Contract Period that is longer than 31 days NODES will issue invoices to the Buyer for the Reservation Price within seventeen (17) Settlement Days from the end of each calendar month covered by the Contract Period, subject to NODES receiving meter data.

3.5 Payments

- 3.5.1 Sections 6.2.2 - 6.2.3 of the Trading and Settlement Schedule, Schedule 2 shall be replaced with the following:
 - (e) If cases where the Network Operator has agreed with Seller specifically, that payments will be settled directly between the two, NODES will not perform any settlement for that seller. Otherwise, the following points apply.
 - (f) NODES will, for each Member and each Settlement Day, calculate the payments due to or from each Member, based on the Member's Contracts, and issue payment instructions in the form of invoices to each Member.
 - (g) NODES will issue invoices to each Network Operator for the Delivery Periods in a calendar month within 17 (seventeen) Settlement Days from the end of that calendar month, subject to NODES receiving metering data
 - (h) The Network Operators shall pay invoices within 30 (thirty) calendar days from their date of issue.
 - (i) NODES will credit the amounts due to the Seller within 5 (five) Settlement Days from NODES' receipt of corresponding payment from the Network Operator in each Contract, and issue a corresponding credit note to the Seller.
 - (j) For LongFlex Contracts with a Contract Period that is equal to or shorter than 31 calendar days NODES will issue invoices to the Buyer for the Reservation Price within seventeen (17) Settlement Days from the end of the calendar month during which the Contract Period ended, subject to NODES receiving meter data.
 - (k) For LongFlex Contracts with a Contract Period that is longer than 31 days NODES will issue invoices to the Buyer for the Reservation Price within seventeen (17) Settlement Days from the end of each calendar month covered by the Contract Period, subject to NODES receiving meter data.

- (l) For MaxUsage Contracts with a Contract Period that is equal to or shorter than 31 calendar days NODES will issue invoices to the Buyer for the Reservation Price within seventeen (17) Settlement Days from the end of the calendar month during which the Contract Period ended, subject to NODES receiving meter data.
- (m) For MaxUsage Contracts with a Contract Period that is longer than 31 days NODES will issue invoices to the Buyer for the Reservation Price within seventeen (17) Settlement Days from the end of each calendar month covered by the Contract Period, subject to NODES receiving meter data.

OTHER PROVISIONS

3.6 Membership and participation

3.6.1 NODES will, in consultation with the Network Operators, admit Members as NODES and the Network Operators see fit.

3.6.2 In order to participate, applicants must:

- (a) have Assets located in at least one of the Network Operators' network areas and, where the Network Operators defines Congestion Zones, within at least one of the Congestion Zones that is created.
- (b) obtain agreement from the relevant Network Operator on:
 - i. whether the Member shall rely on the Network Operator to submit meter values or whether the Member shall submit its own meter values, as set out in section 3.3; and
 - ii. whether the Member shall rely on the default Baseline Capacity or shall nominate an alternative Baseline Capacity, as set out in section 3.1.

3.6.3 Only the Network Operator are allowed to act as Buyer under the Rules. Other Members may only act as Sellers.

3.6.4 NODES may terminate a membership with two (2) days termination notice period to the Member, if NODES has a just cause for termination.

3.6.5 Sections 4.1.2 and 4.4.1 of the General Terms do not apply.

3.7 Market Data

3.7.1 Notwithstanding section 11 of the General Terms:

The Network Operators may use any Market Data from the NODES platform in its general business activities, including in monitoring delivery performance and in its assessment of the NODES' other products and services. Each Member grants NODES the right to make

Market Data available to the Network Operators. Where the Network Operators require, this may include information that identifies individual Members.

3.8 Personal Data

3.8.1 NODES will process any personal data received from Members and their representatives in accordance with its Privacy Policy, as available on NODES' webpage⁴. NODES shall be deemed the data controller of any personal data submitted to NODES for the purpose of operating the market.

3.8.2 Each Member must ensure that it has a valid legal basis for the transfer of any personal data from it to NODES.

3.9 Governing law and dispute resolution

3.9.1 Sections 16.1 and 16.2 of the General Terms shall not apply.

3.9.2 Except as expressly otherwise provided in the Rules, all contractual or non-contractual obligations arising out of or in connection with the market operation, shall be governed by and construed in accordance with the laws of Sweden and be subject to the dispute resolution provisions of the Rules.

3.9.3 The Parties shall endeavour to resolve any disputes arising amicably before initiating legal proceedings. If such negotiations are unsuccessful, the dispute shall be conclusively resolved through arbitration in accordance with the following. The dispute shall be resolved through arbitration administered by the Arbitration Institute of the Stockholm Chamber of Commerce. The place for litigation shall be Gothenburg. The arbitral proceedings and the award shall be treated as confidential information.

⁴ <https://nodesmarket.com/>